

FE171

WIRE DRAG

Diagram No. 1210-3

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey Wire Drag
Field No. WA-HI-SP-16-59
Office No..... FE-171WD

LOCALITY

State Massachusetts
General Locality .. Buzzards Bay
Locality South Entrance to Cleveland
..... Ledge Channel

1959

CHIEF OF PARTY
..... J.B. Plaggmier

LIBRARY & ARCHIVES

DATE December 14, 1959

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.5 1959

FE171
WIRE DRAG

FE No. 5 1959

WIRE DRAG

FE-171-WD

Diag. Cht. No. 1210-3.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG INVESTIGATION

Field No. Wa-Hi-SP 16-59 Office No.

LOCALITY

State MASSACHUSETTS

General locality BUZZARDS BAY

Locality SOUTH ENTRANCE TO CLEVELAND
LEDGE CHANNEL

19 59

CHIEF OF PARTY

JOHN B. PLAGGMIER

LIBRARY & ARCHIVES

DEC 14 1959

DATE

COMM-DC 61300

FE No. 5 1959

WIRE DRAG

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No.

Field No. ~~Wa-H1 55~~ 16-59

State MASSACHUSETTS

General locality BUZZARDS BAY

Locality SOUTH ENTRANCE TO CLEVELAND LEDGE CHANNEL

Scale 1:20,000 Date of survey 30 Sept. to 3 Oct. 1959

Instructions dated 25 AUGUST 1959

Vessel WAINWRIGHT & HILGARD

Chief of party JOHN B. PLAGGMIER

Surveyed by K.R. ANDERSON, P.T. REDDEN & VELLO KIISK

Soundings taken by ~~XXXXXX~~ ~~XXXXXX~~, graphic recorder, ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~

Fathograms scaled by NONE

Fathograms checked by

Protracted by W.W. FEAZEL & A.K. SCHUGELD

DRAG STRIPS INKED BY:

~~XXXXXXXXXXXXXX~~ W.W. FEAZEL

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~

REMARKS:

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.....

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.....

.....

C O P Y

USC&GSS WAINWRIGHT & HILGARD
U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
102 W. Olney Road,
Norfolk 10, Va.

C O P Y

23 October 1959

To: Director
Coast and Geodetic Survey
U S Department of Commerce Building
Washington 25 D C

Subject: Special Project 16-59; Wire Drag, Entrance Cleveland Ledge
Channel, Buzzards Bay, Massachusetts

Special Project 16/59 was completed on 3 October 1959 and all records and data forwarded to Norfolk District Office on 23 October 1959.

All processing was completed with exception of tides, which have been requested from Washington.

Area was completely covered by wire drag to maximum depths obtainable and no obstructions were found. All depths corresponded to chart-ed depths, however some shoaling was noted on Western edge of "dumping ground" Chart 249, which is to the Eastward of assigned area, which may require hydrographic investigation. This was not attempted by this Command due to adverse weather.

Work was performed in routine manner utilizing natural objects for visual control.

No Geodetic Position was furnished for checking boat sheet location of "Cleveland East Ledge" Lighthouse, and it was noted that "Wings Neck Light" was rebuilt in 1943 and the latest geodetic position is dated 1934, however all signals were checked thoroughly prior to commencing drag operations and all signals checked. It is recommended "Wings Neck Light" geodetic position be relocated or checked.

see attached letter dated 6 Nov. 1959 USC&GS

No additional dragging in subject area is recommended.

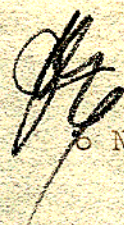
John R. Plaggmier
Lt. Commander, C&GS
Commanding WAINWRIGHT &
HILGARD

CC: Norfolk District Officer
Boston District Officer

JRP/jrb

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON 25

AND REFER TO NO. 839:hrm



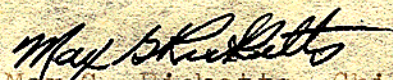
6 November 1959

To: Norfolk District Officer
Coast and Geodetic Survey
102 West Olney Road
Norfolk 10, Virginia

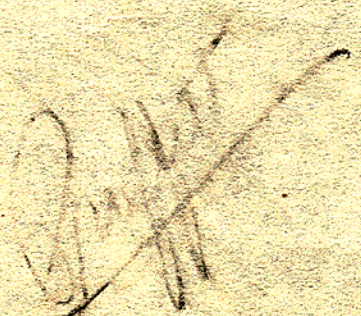
Subject: Control - Special Project 16-59. Reference your
letters dated 23 October 1959 and 29 October 1959

According to H. O. Notice to Mariners No. 23 (para 1596) of 1943, Wings Neck Light was moved about 42 feet one degree true from its position as given on page 323, Geographic Positions, i.e., Wings Neck Righthouse, 1904; r1939d. Lat. 41°40'48.508" (1,496.6m) Long. 70°39'42.260" (977.4m). The current charted position is the location determined plotting 1° true at a distance of 42 feet from the last triangulation location as listed on page 323 of the Geographic positions.

The position of the Cleveland Ledge Light was determined by good sextant fixes 21 July 1942 by John Bowie commanding the ship GILBERT and is lat. 41°37'50.8" (1568.5m) long. 70°41'41.4" (957.4m).


Max G. Ricketts, Chief
Nautical Chart Branch
Chart Division

Enclosures (2)



NORFOLK PROCESSING OFFICE
AIDS TO NAVIGATION...
SP 16-59

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
BUZZARDS BAY					
Ltd. Bell Buoy 7	41-36.46 ✓	70-43.51 ✓	-	4a ✓	9-30-59
Obstr. L'td. Buoy 2B	41-37.37 ✓	70-42.46 ✓	-	1a ✓	"
Shoal L'td. Buoy 2A	41-37.56 ✓	70-42.02 ✓	-	2a ✓	"
CLEVELAND LEDGE CHANNEL					
Lighted Buoy 1	41-37.87 ✓	70-41.93 ✓	-	3a ✓	"

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
To Accompany

SP 16-59

TRIANGULATION STATIONS

BIRD	BIRD ISLAND LIGHTHOUSE, 1835-1936
FIRE	FALMOUTH FIRE TOWER, 1934-38
NOB	FALMOUTH, TANK WITH BLACK KNOB, 1932-39
TANK	FALMOUTH HEIGHTS WATER TOWER, 1904-48
WOOD	WOODS HOLE, 1934-35

TOPOGRAPHIC STATIONS

SOURCE Letter dated 6 Nov. 1959

Clev
Win

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

WIRE DRAG INVESTIGATION SP 16-59

GENERAL

All drag strips were plotted on overlays which are being submitted with the survey. ✓

The final hang data are shown with leaders on the smooth sheet. ✓

A registry number was not requested for this investigation. ✓

CONTROL

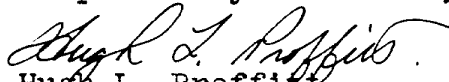
Control stations Win and Clev were plotted in accordance with the letter from Chief, Nautical Chart Branch, dated 6 November 1959, 839:hrm. ✓

PROCESSING

Complete processing, with the exception of the entry of lift corrections, was accomplished by the Norfolk Office. Tide reducers were furnished by the Division of Tides and were referred to the standard gage at Newport, R.I. ✓

Norfolk, Va.
23 Nov. 1959

Respectfully submitted,


Hugh L. Proffitt
Cartographer

REVIEW OF FIELD EXAMINATION NO. 5, 1959BUZZARDS BAYShips WAINWRIGHT & HILGARD

1. This field examination was made in compliance with the Instructions for Special Project 16-59, dated 25 August 1959.
2. The purpose of the examination was to drag the southeast approach to Cleveland Ledge Channel, Buzzards Bay, Massachusetts, in order to verify or disprove the existence of an uncharted 15-ft. obstruction reported in H.O.N. to M. 9, 1959, in the vicinity of lighted buoy "2A", in lat. $41^{\circ}37.55'$, long. $70^{\circ}42.01'$. The area in general was to be dragged to an effective depth of 32 ft. at MLW., except in shoaler areas where it was to be dragged to the maximum depth obtainable.
3. The reported 15-ft. obstruction was not found within the area dragged on the present survey.
4. Attention is directed to the 27-ft. sounding charted in lat. $41^{\circ}37.35'$, long. $70^{\circ}42.30'$, from a sweep survey by the U. S. Corps of Engineers (H.O.N. to M. 9, 1943), who found a boulder at this position. The field examination covered the position of the charted 27-ft. sounding with a single strip whose effective depth was 32 ft. The charted 27-ft sounding was cleared by drags set to effective depths of 33 ft. in 1912-13 (H-3391 WD) and 31 ft. in 1942 (H-6831 WD). In view of the nature of the original report and the absence of an adequate investigation of the 27-ft. sounding on the present survey, it is advisable to retain the sounding on the chart. However, consideration might be given to moving the charted 27-ft. sounding about 1-2 mm. south southwestward where it would fall at the edge of an area cleared by a drag set to an effective depth of 25-ft. on the present survey.
5. The results of the field examination are shown on the attached A and D diagram on tracing cloth and a section of smooth sheet.
6. F.E. 5, 1959 has not been applied to chart 249, dated 21 September 1959.
7. The attached correspondence adequately covers all matters pertaining to this examination. No further discussion is considered necessary.

Inspected by: R. H. Carstens
Reviewed by: I. M. Zeskind - 1/5/59

F. E. #5 1959

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~XXXXXXXXXXXXXXXXXXXX~~
~~Division of Coastal Surveys~~

16 December 1959

Division of Charts: R. H. Carstens:

Plane of reference approved in

3 volumes of ~~sounding records~~ wire drag records for
Special Project 16/59

~~HYDROGRAPHIC SHEET~~

Locality Cleveland Ledge Channel, Buzzards Bay

Chief of Party: J. R. Plaggmier in 1959


Plane of reference is mean low water

ft. on tide staff at

ft. below B. M.

Height of mean high water above plane of reference is 4 feet.

Condition of records satisfactory except as noted below:



Chief, Tides Branch

~~Chief, Division of Tides and Currents~~

[illegible]

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .F.E.No.5 (1959) W.D.

Records accompanying survey:

Boat sheets ...1...; sounding vols. ...1...; wire drag vols. ...2...;
bomb vols.; graphic recorder rolls;
special reports, etc. 1-Smooth sheet, 1-A & D sheet, 1-Descriptive
report & 1-Roll, plotting overlays,

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	.....	92
Number of positions checked	.....	28
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	0
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	0
Junctions	Time	
Verification of soundings from graphic record	Time	0

Verification by [Signature] Total time 27 Date 12-31-59
Reviewed by [Signature] Time 8 Date 1-5-60

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
BOSTON DISTRICT OFFICE
CUSTOM HOUSE, BOSTON, MASS.

28 July 1959

To: The Director
Coast and Geodetic Survey
Washington 25, D. C.

Subject: Recommendations to wire drag
Approaches to Cleveland Ledge
Channel, Buzzards Bay, Mass.

Reference: My letter to the Director,
dated 17 February 1959

The Corps of Engineers have failed to find the obstruction which a tanker grounded on 5 February 1959 in the southwest approach to Cleveland Ledge Channel (see attached reference). A preliminary investigation was made and an attempt made to sweep the area with a channel sweep, which was not satisfactory or complete.

As the area in question falls outside the dredged channel and there is a question of marine safety which is a Bureau responsibility, it is proposed that the area be wire dragged by the USCGC HILGARD and USCGC HATWRIGHT on their way south this fall.

There is attached, an overlay traced from C&G Chart No. 249 which shows the proposed area to be wire dragged to effective depth of 32 feet at mean low water shown by cross hatching.

It is to be noted that the area indicated is in excess of what is required for the present navigation route, however it is desirable that the portion which includes the prolongation of Cleveland Ledge Channel also be wire dragged.

The tentative program of the Corps of Engineers, for fiscal year 1960, includes a feature for the removal of rock in Cleveland Ledge Channel in the vicinity of Buoy 24. Therefore, should any other obstruction be encountered protruding above 32 feet at mean low water within this area to preclude the establishment of a straight thoroughfare, the removal of the same could be incorporated in the afore mentioned work.

Reference: Recommendations to Wire Drag
Approaches to Cleveland Ledge
Channel, Buzzards Bay, Mass.

There is being forwarded for your information, under separate cover, four prints of the latest hydrographic and sweeping surveys in the vicinity of Buoy 2A and 2B entitled "Cape Cod Canal, Massachusetts, Maintenance Sweeping Sta. 872 to 878, Cleveland Ledge Channel", dated October 1943. "Cape Cod Canal, Massachusetts, Maintenance, Cleveland Ledge Channel, Soundings Vicinity of Sta. 875". "Cape Cod Canal, Massachusetts, Final Soundings after Dredging Sta. 838 to Sta. 880, Cleveland Ledge Channel", dated 19 May 1958. "Cape Cod Canal, Mass., Final Soundings after dredging, Cleveland Ledge Channel, Vicinity Buoys 2A and 2B" dated 28 May 1958.

It is strongly recommended that a wire drag survey be executed this fall as outlined in the preceding paragraphs.

Kenneth S. Ulm
Commander, C&GS
District Officer

CC: Engr. in Charge,
Cape Cod Canal

VIA AIR MAIL

BOSTON DISTRICT OFFICE

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

17 February 1959

To: The Director.
Coast and Geodetic Survey
Washington 25, D. C.

Subject: Reported Obstruction Entrance
Cleveland Ledge Channel - Charts 249 -1210

Reference: Notice to Mariners No. 9 - 1959
Paragraph 941

The obstruction reported in the above reference was based on the Master of a Tanker report that his vessel on 5 February 1959, at 11:16, while east bound hit an obstruction 15 feet below the waterline. At the time the draft of the vessel was 29.8 feet and the tide was about minus .4 of a foot. On the ship's arrival in Boston an interior survey was made. An 8" hole and several buckled plates were found one foot above the keel in the vicinity of the fore peak tank.

The Engineer in Charge of the Cape Cod Canal made a hydrographic investigation in the area of the reported obstruction and failed to find any obstruction protruding 15 feet above the bottom. As a result of this investigation the following appeared in the Local Notice to Mariners dated 13 February 1959. "The U.S. Army Division, New England, Corps of Engineers, Cape Cod Field Office, Buzzards Bay, Massachusetts, reports that pending further notice a controlling depth of 29 feet exists at the southwest approach to Cleveland Ledge Channel between lines 233° True from the charted positions of Cleveland Ledge Channel Lighted Buoy 1 and Buzzards Bay Shoal Lighted Buoy 2A".

The Engineer in Charge of the Cape Cod Canal plans to drag the area within a few days and will advise this office of the results.

It is the opinion of the Army Engineers that the initial report of an obstruction 15 feet above the bottom is erroneous. Therefore it is recommended that charting of an obstruction in the area involved be delayed until more positive evidence of its height above the bottom is available.

upper in mid channel

beam of Buzzards Bay Shoal Lighted Buoy 2A

Kenneth S. Ulm
Commander, C&GS
District Officer

ASU-jtc

NOTE:

Area within limits indicated, dragged to effective depths of 27-37 ft in 1912-14 (H-3391 WD) and in 1942 (H-6831 WD).

From N to M 9, 1943 (U.S.C of E.) subsequent to clearance of 31 ft on H-3391 (1912-14).

From H-2318 (1897)
Cleared by 33 ft.
(H-3391 WD (1912-14))

From H-6831 WD (1942)
Cleared by 29 ft (H-6831 WD)

From U.S.C. of E. 1940
Cleared by 28 ft (H-6831 WD, 1942)

From H-2318 (1897)
Cleared by 31 ft (H-3391 WD (1912-14))

Sdgs. from H-3391 WD (1912-14)
Cleared by 33 ft (H-3391)

Used Wire drag limits

CHART 249
Scale: 1-40,000
9-8-58

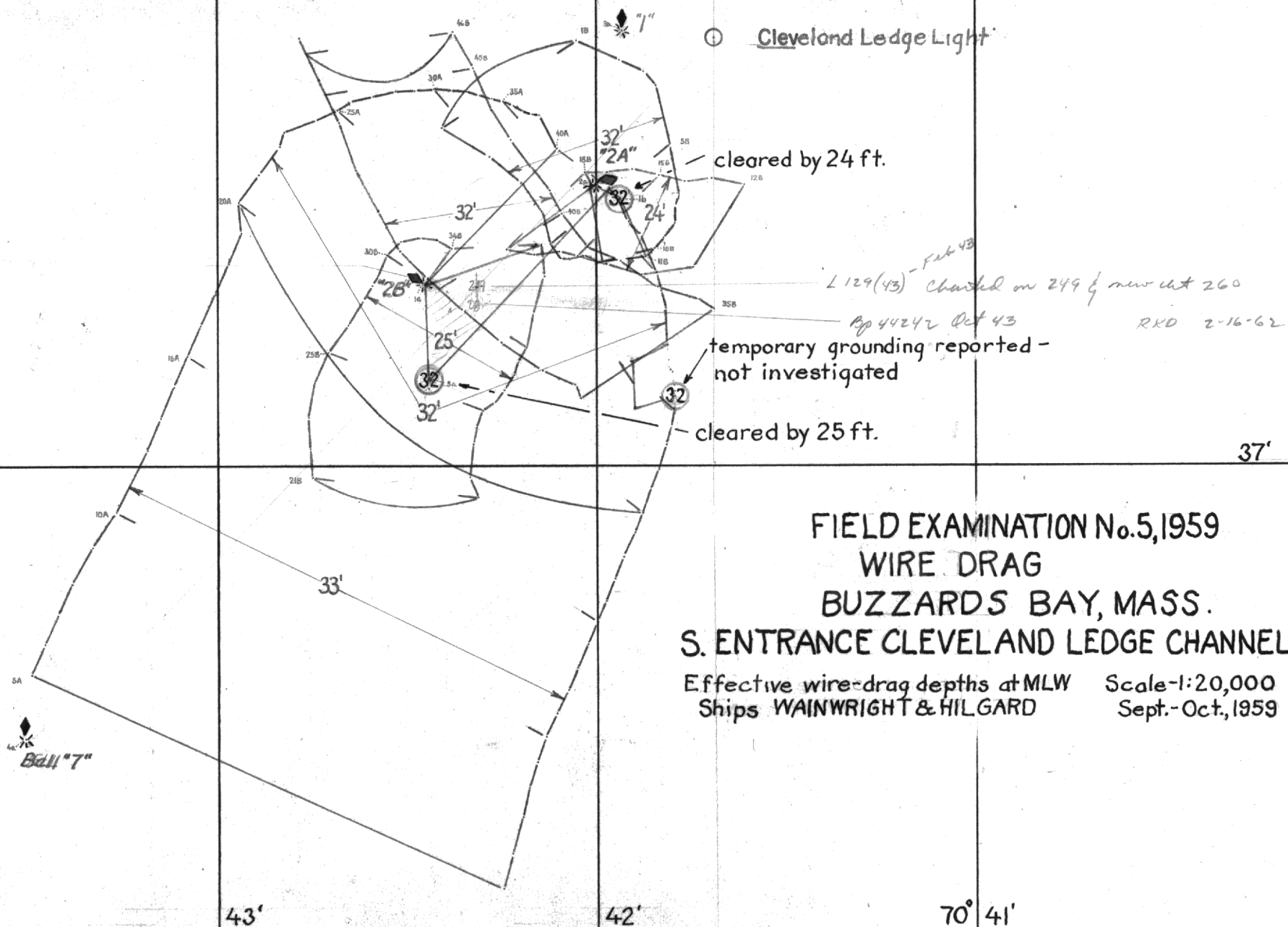
Gifford Ledge

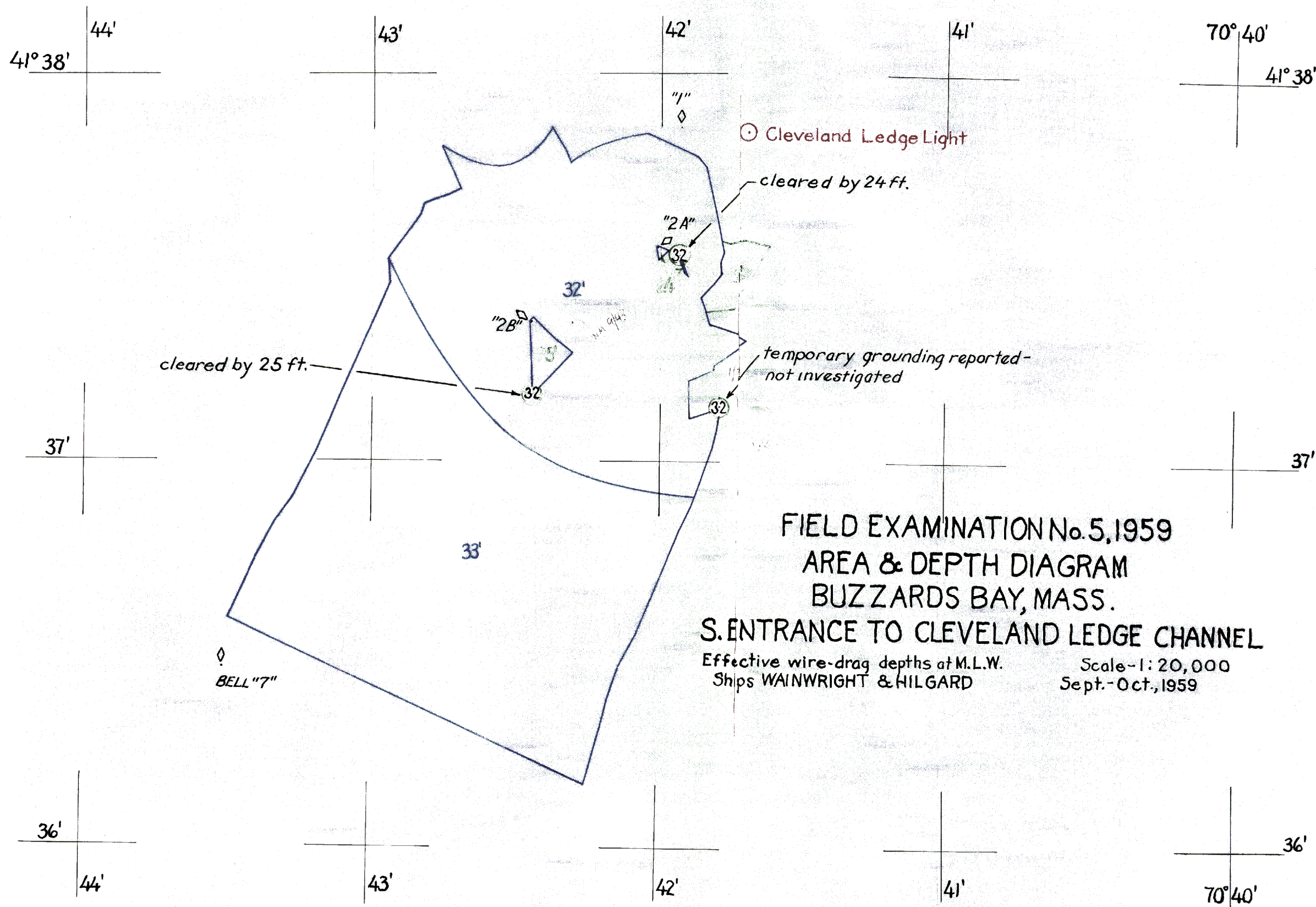
Chappaquiddick

Dumping Ground

35

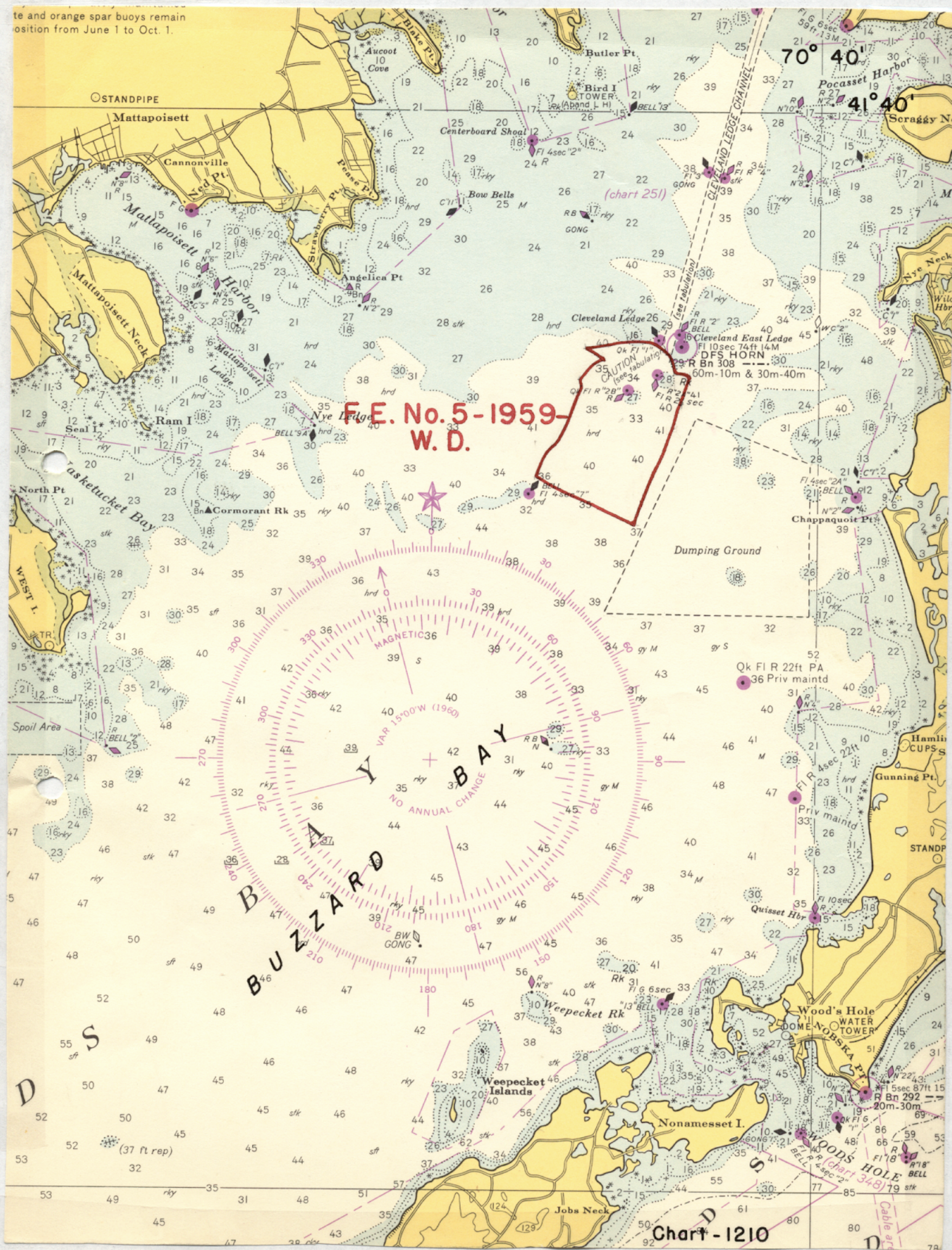
41°38'





FIELD EXAMINATION No. 5, 1959
AREA & DEPTH DIAGRAM
BUZZARDS BAY, MASS.
S. ENTRANCE TO CLEVELAND LEDGE CHANNEL
Effective wire-drag depths at M.L.W.
Ships WAINWRIGHT & HILGARD
Scale - 1:20,000
Sept. - Oct., 1959

te and orange spar buoys remain
position from June 1 to Oct. 1.



NAUTICAL CHARTS BRANCH

SURVEY NO. F. E. No.5 (1959) W.D.

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

149-2

118-1